

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/035370

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 508 471 A (DOW CORNING CORP) 31 December 1982 (1982-12-31) cited in the application page 6, line 6 - line 25 page 7, line 8 - line 12 page 9, line 4 - line 19 page 9, line 25 - line 30	1,3,6,9, 10,13, 15,17,18
X	FR 2 111 310 A (MIDLAND SILICONES LTD) 2 June 1972 (1972-06-02) page 1, line 14 - line 19 page 1, line 28 - line 31 page 2, line 21 - line 26	1,3
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *&* document member of the same patent family

Date of the actual completion of the international search

23 February 2005

Date of mailing of the international search report

03/03/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hilgenga, K

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/035370

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 666 681 A (JOSEPH W. KEIL) 30 May 1972 (1972-05-30) column 1, line 48 column 1, line 52 - line 53 column 5; example 1 column 5, line 68 - line 69 column 6, line 56 column 2, line 12 - line 13	1,3,6, 13,15
A	US 6 083 998 A (ROMUALDO ET AL) 4 July 2000 (2000-07-04) cited in the application the whole document	
X	US 5 082 590 A (ARAUD ET AL) 21 January 1992 (1992-01-21) column 2, line 52 - line 53 column 2, line 47 - line 48 column 4, line 43 - line 46 column 3, line 43 - line 46	1-3,11
X	US 4 104 186 A (CAFFAREL ET AL) 1 August 1978 (1978-08-01) column 6, line 58 - line 62 column 3, line 32 - line 35 column 4, line 15 - line 17	1,3
X	US 5 271 868 A (AZECHI ET AL) 21 December 1993 (1993-12-21) column 6, line 38 - line 49; claims 1,14 column 6, line 3 - line 12	13,15
X	US 3 984 347 A (KEIL ET AL) 5 October 1976 (1976-10-05) column 1, line 20 - line 27 column 1, line 35 - line 37 column 2, line 47 - line 52 column 2, line 55 - line 60 column 3, line 5 - line 7 column 3, line 48 - line 56	13,15-17
A	US 4 082 691 A (BERGER ET AL) 4 April 1978 (1978-04-04) column 4, line 7 - line 12 column 7, line 21 column 3, line 69 column 6, line 67 column 6, line 47 column 4, line 31	12,19,20
P,A	US 6 656 975 B1 (CHRISTIANO STEVEN PATRICK ET AL) 2 December 2003 (2003-12-02) column 8, line 32 - line 42 column 3, line 55 - line 56; claim 1	19,20
	-/--	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/035370

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 451 390 A (FLANNIGAN ET AL) 29 May 1984 (1984-05-29) column 2, line 6 - line 10 column 3, line 8 - line 13	12
X	GB 631 507 A (THE DISTILLERS COMPANY LIMITED) 3 November 1949 (1949-11-03) page 2, line 78 - line 81 page 3, line 28 - line 30 page 3, line 34 - line 36 page 3, line 49 - line 55	1-3,11, 19
A	GB 875 113 A (FABRIQUES DE LEVURE, SUCRE & ALCOOLS DE SAINT-OUEN-L'AUMONE) 16 August 1961 (1961-08-16) page 1, line 53 - line 70 page 2, line 39 - line 40 page 2, line 97 - line 110	1,12,13, 19,20

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/035370

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2508471 A	31-12-1982	BR 8104047 A AU 8534482 A FR 2508471 A1 JP 1784407 C JP 4076675 B JP 58005184 A SE 8203094 A	01-02-1983 06-01-1983 31-12-1982 31-08-1993 04-12-1992 12-01-1983 27-12-1982
FR 2111310 A	02-06-1972	CA 921354 A1 DE 2151271 A1 FR 2111310 A5	20-02-1973 20-04-1972 02-06-1972
US 3666681 A	30-05-1972	AT 303689 B BE 764256 A1 DE 2112579 A1 FR 2084632 A5 GB 1296308 A NL 7103529 A SE 372423 B	11-12-1972 15-09-1971 30-09-1971 17-12-1971 15-11-1972 20-09-1971 23-12-1974
US 6083998 A	04-07-2000	AU 744552 B2 AU 3211099 A BR 9909858 A EP 1079908 A1 WO 9955439 A1 US 6448298 B1	28-02-2002 16-11-1999 19-12-2000 07-03-2001 04-11-1999 10-09-2002
US 5082590 A	21-01-1992	FR 2624128 A1 AR 246686 A1 AT 73001 T BR 8806550 A CA 1301978 C DE 3868899 D1 EP 0322322 A1 ES 2032592 T3 GR 3004217 T3 JP 1171610 A JP 1757036 C JP 4050047 B	09-06-1989 30-09-1994 15-03-1992 22-08-1989 26-05-1992 09-04-1992 28-06-1989 16-02-1993 31-03-1993 06-07-1989 23-04-1993 13-08-1992
US 4104186 A	01-08-1978	FR 2351156 A1 BE 854468 A1 CA 1095368 A1 CH 619621 A5 DE 2721238 A1 GB 1572371 A IT 1082053 B JP 1224245 C JP 52136894 A JP 58001605 B NL 7705155 A	09-12-1977 10-11-1977 10-02-1981 15-10-1980 24-11-1977 30-07-1980 21-05-1985 15-08-1984 15-11-1977 12-01-1983 15-11-1977
US 5271868 A	21-12-1993	JP 2865466 B2 JP 5057109 A	08-03-1999 09-03-1993
US 3984347 A	05-10-1976	AU 8259075 A BE 836786 A1 BR 7507551 A	06-01-1977 18-06-1976 24-08-1976

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/035370

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3984347	A		CA 1058052 A1 DE 2534250 A1 FR 2295080 A1 GB 1525946 A JP 1364060 C JP 51071886 A JP 55023084 B	10-07-1979 01-07-1976 16-07-1976 27-09-1978 09-02-1987 22-06-1976 20-06-1980
US 4082691	A	04-04-1978	BE 823541 A1 CA 1035663 A1 DE 2454977 A1 FR 2257322 A1 GB 1490393 A IL 46044 A IT 1025906 B JP 50131883 A NL 7416054 A , B	16-04-1975 01-08-1978 17-07-1975 08-08-1975 02-11-1977 30-06-1977 30-08-1978 18-10-1975 18-07-1975
US 6656975	B1	02-12-2003	BR 0304937 A WO 03099413 A1	28-09-2004 04-12-2003
US 4451390	A	29-05-1984	BR 8205692 A DE 3266910 D1 EP 0076558 A1 FI 822206 A , B, JP 58137407 A	30-08-1983 21-11-1985 13-04-1983 31-03-1983 15-08-1983
GB 631507	A	03-11-1949	NONE	
GB 875113	A	16-08-1961	FR 1210092 A LU 37580 A	07-03-1960

BEST AVAILABLE COPY